Amendments to the Claims

1. (Currently amended) A method of reinforcing a veneer wall by tying it to a back-up wall, comprising:

installing a fastener into the back-up wall, the fastener having a threaded portion which extends substantially at right angles from the surface of the back-up wall to provide a thread for engagement ~~with~~ within a tubular connector;

fitting the tubular connector onto the threaded portion of the fastener, the connector internally receiving the fastener and engaging with the thread such that removal of the connector from the fastener is prevented without rotation of the connector, the connector further having a portion for receiving a reinforcement wire;

fitting the reinforcement wire into said receiving portion of the connector, the reinforcement wire extending substantially at right angles to the fastener and preventing rotation of the connector with respect to the fastener; and

integrating the reinforcement wire with the veneer wall by securing the reinforcement wire within a mortar bed joint of the veneer wall.

2. (Original) A method as claimed in claim 1, wherein the fastener is a metal wall tie of a helical type made from twisted profiled wire.

3. (Original) A method as claimed in claim 2, wherein the fastener is installed by driving it into the masonry back-up wall using a percussion tool.

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4. (Original) A method as claimed in claim 3, wherein the fastener extends substantially at right angles to the plane of the back-up wall.

5. (Original) A method as claimed in claim 4, wherein the connector is in the form of a sleeve that fits closely over the protruding end of the fastener.

6. (Original) A method as claimed in claim 5, wherein the connector is fitted by screwing it on to the threaded portion of the fastener.

7. (Original) A method as claimed in claim 1, wherein the reinforcement wire is positioned between 25-50mm from the external surface of the veneer wall.

8. (Original) A method as claimed in claim 1, wherein the reinforcement wire is fitted by threading it through a hole in the receiving portion of the connector.

9. (Original) A method as claimed in claim 8, wherein the reinforcing wire is threaded through the hole of one connector, through the hole of an adjacent connector and so forth along the mortar bed joint to link a plurality of connectors and fasteners to a single length of reinforcement wire.

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10. (Original) A method as claimed in claim 9, wherein additional reinforcement wires are laid in parallel along the bed joint and threaded through additional holes in the connectors.

11-12. (Cancelled)

13. (Original) A method as claimed in claim 8, wherein the reinforcement wire is a twisted profiled wire.

14. (Original) A method as claimed in claim 13, wherein the reinforcement wire extends the length of the wall.

15. (Original) A method as claimed in claim 13, wherein the reinforcement wire extends around a building.

16. (Original) A method as claimed in claim 1, wherein the connector and reinforcement wire are encased within a mortar bed joint of the veneer wall.

17. (Original) A method as claimed in claim 16, wherein the connector is positioned in the bed joint at a junction of a pair of bricks.

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18. (Original) A method as claimed in claim 1, wherein the method comprises a step of removing mortar from a bed joint in the veneer wall prior to inserting fasteners into the back-up wall.

19. (Original) A connector for connecting a reinforcement wire to a wall tie extending substantially at right angles to the reinforcement wire, the wall tie comprising a twisted wire having helical fins extending therealong, wherein the connector comprises:

a tube of internal diameter which closely fits the external diameter of the helical fins of the wall tie for providing a sleeve which engages over one end of the wall tie;

a hole passing through opposing sides of the tube wall substantially at right angles to the longitudinal axis of the tube, the hole being of a size for receiving the reinforcement wire; and

at least one region of narrowed internal diameter for engaging the helical fins of the wall tie to prevent withdrawal of the wall tie from the connector without respective rotation between the connector and the wall tie.

20. (Original) A connector as claimed in claim 19, wherein the connector is provided with additional holes for receiving additional reinforcement wires that are laid in parallel along the bed joint.

21. (Original) A connector as claimed in claim 19, wherein the region of narrowed internal diameter consists of a crimped section of the connector.

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22. (Original) A connector as claimed in claim 21, wherein the region of narrowed internal diameter reduces the distance between opposed internal surfaces of the tube by at least 1mm.

23. (Original) A connector as claimed in claim 19, wherein there are two regions of narrowed internal diameter.

24. (Original) A connector as claimed in claim 19, wherein the tube has an internal diameter of between 6 and 12mm.

25. (Original) A connector as claimed in claim 24, wherein the tube has a length of between 50 and 100mm.

26. (Original) A connector as claimed in claim 24, wherein the hole for the reinforcement wire is of a diameter which is 1mm less than the internal diameter of the tube.

27. (Original) A connector as claimed in claim 26, wherein the axis of the tube and the axis of the hole for the reinforcing wire are in-line.

28. (Currently amended) A system for reinforcing a veneer wall against seismic conditions or wind loading comprising:

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a fastener which is installed into a back-up wall of a structure, the fastener having a threaded portion which extends substantially at right angles from the surface of the back-up wall to provide a thread for engagement ~~with~~ within a tubular connector;

a tubular connector which is fitted on to the threaded portion of the fastener, the connector having an internal diameter for internally receiving the fastener and having means for engagement with the thread of the fastener such that removal of the connector from the fastener is prevented without rotation of the connector, the connector further having a portion for receiving a reinforcement wire;

a reinforcement wire which is fitted in to said receiving portion of the connector, the reinforcement wire extending substantially at right angles to the fastener and preventing rotation of the connector with respect to the fastener; and

the connector, reinforcement wire and a portion of the fastener being encased in filler material provided within a bed joint of the veneer wall to integrate the reinforcement with the veneer wall.

29. (Original) A system as claimed in claim 28, wherein the system is used as a repair on an existing building.

30. (Previously presented) A system as claimed in claim 29, wherein the system includes a channel for the reinforcement wire formed in a bed joint in the veneer wall.

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31. (Original) A system as claimed in claim 28, wherein a first reinforcement wire is threaded through the receiving portion of one connector, through the receiving portion of an adjacent connector and so forth along the mortar bed joint to link a plurality of connectors and fasteners to a single length of reinforcement wire.

32. (Original) A system as claimed in claim 31, wherein the connector is provided with additional receiving portions for receiving additional reinforcement wires that are laid in parallel along the bed joint.

33. (Original) A system as claimed in claim 32, wherein a first reinforcement wire is threaded through a first hole of the connector in one direction and a second reinforcement wire is threaded through a second hole of the connector from the other direction to provide a staggered overlap to transmit forces from one wire to the next.

34. (Original) A system as claimed in claim 33, wherein the reinforcement wires extend around a building.

35. (Original) A system as claimed in claim 28, wherein the fastener is a metal wall tie which has been made from twisted profiled wire and is provided with helical fins, the fastener being installed by driving it into the masonry back-up wall using a percussion tool, the fins of the fastener acting as blades which cut a helical path into the masonry under the hammer impacts of the tool so that no adhesive is required to secure the wall tie in position.

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36. (Currently amended) A method of reinforcing a wall against seismic or adverse wall loading conditions comprising:

driving one end of a helical wall tie into an inner leaf of said wall, the wall tie being secured in position through mechanical interlock with the inner leaf without the presence of an adhesive, the wall tie having a second end extending substantially at right angles to the plane of the wall;

placing a tubular connector over the second end of the wall tie so that the tubular connector internally receives the wall tie, the connector comprising a portion having a narrowed diameter defined by opposed flats, the flats having a spacing which is less than the external diameter of the helical fins of the wall tie such that withdrawal of the connector along the helical fins of the wall tie requires rotation of the connector, the connector further having a portion with a hole for receiving a reinforcement wire therethrough substantially at right angles to the wall tie;

threading a reinforcement wire through said hole of the connector; and

securing the reinforcement wire and connector in a filler material within a bed joint of a second leaf of the wall.

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